

METAL CONSTRUCTION

& BRITISH WELDING JOURNAL

INDEX

January–December 1973
Volume 5

A

Accidents, Welding injury, 261
Aluminium-magnesium alloy, Composition affects tensile strength of welded, 11
Aluminium-sprayed structural steel, Weldability of, 50
Aluminium staircase, Science Museum's, 266
Arc voltage selection in pipeline welding, 254

B

Bessborough Report, 264
Boiler-tube failures, CEBG examines, 420
BOOKS
Competitive processes in joining—1972 Autumn Review Course of the Institution of Metallurgists, 253
Cracking and fracture in welds; Japanese Welding Engineering Society Symposium, 103
Refractories: production and properties; J. H. Chesters, 434
Schweissen Heute und Morgen; DVSeV, 30
Sheet Metal Industries Year Book, 1972/3, 73
Steel Frame Design Examples, SI edition; Ian Robb, 30
Symposium on stress corrosion cracking of metals—State of the art, ASTM STP 518, 1972, 253
Zirconium in nuclear technology; P. Greenfield, 30
Box girders for bridges, Steel, 43
Brazing and Soldering Technical Group, 237, 474
Brazing—for motor-car radiators, Fluxless aluminium, 19
Brazing of electrical connections, Resistance, 205
Brittle fracture in 3½% Ni steel weldments, Influence of heat treatment and thickness on, 94
Brittle Fracture Technical Group, 115
Butt welds in rolled steel joints, Fatigue strength of, 20

C

Cantor Lectures: Welding in the service of industry, Dr. R. Weck, 224
Car exhausts in S.S., 152
Cast-iron drying cylinder, Metal-arc repair to, 148
CEBG examines boiler-tube failures, 420
Centrifuge arm, Welding a 10-metre, 186
Certification scheme for weldment inspection personnel, 108
Chicago, A trip to, 305
Cladding mild steel with copper-nickel

sheet, 220

Common Market, Resistance welding and the, 7
Composition affects tensile strength of welded aluminium-magnesium alloy, 11
Conference on advances in welding processes, Third International, 132
Consumable-guide weld, Investigation of a defect in a, 26

D

Deceleration: Friction welding of mild steel: the effects of varying, 125
Denmark, Welding in, 336
Design awards for steel bridges, 63
Design awards 1973, Structural steel, 464
Development in wire-feeding systems, 66
Developments in welding education, 104

E

EBW gun, Mobile, 302
Education, Developments in welding, 104
EEC
Resistance welding and the Common Market, 7
Welding in Denmark, 336
Welding in France, 458
Welding in Germany, 226
Welding in Italy, 245
Welding in the Netherlands, 165
Welding in the Republic of Ireland, 298
Welding in the United Kingdom, 422
Effects of microcracks on mechanical properties of austenitic stainless-steel weld-metals, 140
Electroslag Welding Technical Group, 474
ESSEN
British Exhibitors in Essen, 312
Preview—Some exhibitors at the International Welding and Cutting Fair—19-23 September, 341
Some impressions of the 1973 Welding Fair, 427
Explosive welding of tubes to tube-plates, 412
Explosive welding projects, 260
Explosive welding techniques, 285

F

Fabrication at Welding Industries, 374
Fatigue life, Influence of low-modulus weld-toe overlays on, 330
Fatigue properties in welded high-strength steels, TIG dressing to improve, 134
Fatigue strength of butt welds in rolled steel joints, 20
Fifty years of The Welding Institute, 3
Flamecutting improves productivity, Mechanised, 235

Fluxless aluminium brazing—for motor car radiators, 19
Fracture characteristics of simulated HAZ's in a low-alloy constructional steel, 250
Fracture toughness testing, Aspects of, 214
France, Welding in 458
Friction welding in the UK. Part 1: Fabrication in quantity production, 378
Friction welding in the UK. Part II: Batch applications, 408
Friction welding of mild steel: the effects of varying the value of deceleration, 125
Friction Welding Technical Group, 314
Friction welds, Process parameters and, 293
Fumes from arc welding, 406

G

Galvanized reinforcement for concrete bridges, 89
Gas-shielded Arc Welding Technical Group, 153
Germany, Welding in, 226

H

Hardsurfacing conveyor rolls, 149
Heat treatment and thickness on brittle fracture in 3½% Ni steel welds, Influence of, 94
High-strength steels, TIG dressing to improve fatigue properties in welded, 134

I

IIW
IIW Annual Assembly 1973, 197, 359, 426
The road to '98, 456
Twenty-five years of the International Institute of Welding, 425
Implant method at the Institut de Soudre, 384
Important events in welding, 443
Influence of heat treatment and thickness on brittle fracture in 3½% Ni steel weldments, 94
Influence of low-modulus weld-toe overlays on fatigue life, 330
Injury accidents, Welding, 261
Investigation of a defect in a consumable-guide weld, 26
Italy, Welding in, 245
INTERVIEW
Studwelding—the early days; an interview with Mr. Harold Martin, 9
Integrity, character and expert knowledge: an interview with Dr. Oleg Kerensky, 182

J

Japanese fabricator, Ultrasonic testing by a, 376

JCB, MIG welding at, 328
Joining processes—assessing their competitive nature and aiding process selection; a book review, 253
Joining techniques for zinc-coated steel, 60
JUBILEE
Fifty years of The Welding Institute, 3
Steps in welding innovation and achievement, 443

K

Kerensky, Dr. Oleg: an interview, 182

L

Letters to the Editor, 41, 219, 321, 340, 467
Low-modulus weld-toe overlays on fatigue life, Influence of, 330

M

Mechanised flamecutting improves productivity, 235
Metal-arc repair to cast-iron drying cylinder, 148
Metal-arc welding of white cast iron, 370
Microcracks on mechanical properties of austenitic stainless-steel weld-metals, Effects of, 140
Microjoining Technical Group, 153, 393
MIG welding at JCB, 328
MIG welding set, Mobile military, 363
Mobile EBW gun, 302
Monitoring for production, Resistance-weld, 172
Moon, A. Ramsay; Award, 474

N

Netherlands, Welding in the, 165
Non-destructive Testing Technical Group, 394
Norway, A visit to, 451

O

OBITUARIES
Barr, W., 476
Fisher, M. S., 433
Francis, A. J., 315
Garside, E. A., 35
Harris, H., 117
Lea, E. A., 75
Melchett, Lord, 283
Schnadt, H. M., 277
Organisation of pressure-vessel research in the UK, 90

P

Paper radiography lowers costs, 185
Pipe and Pipeline Welding Technical Group, 76, 436

Pipeline welding, Arc voltage selection in, 254
Pipelines, Radiography for welded, 268
Pressure-vessel research in the UK, Organisation of, 90
Process parameters and friction welds, 293
Properties of austenitic stainless-steel weld-metals, Effects of microcracks on mechanical, 140
Properties of splashed resistance spot welds, 401
Pulsed TIG method, Tube welding by the, 85

Q

Quality control techniques, Resistance welding, 177

R

Radiography for welded pipelines, 268
Rebuilding crusher rolls, 196
Repair and maintenance welding, 312
Repair to cast-iron drying cylinder, Metal-arc, 148
Republic of Ireland, Welding in the, 298
Resistance brazing of electrical connections, 205
Resistance spot welds, Properties of splashed, 401
Resistance welding and the Common Market, 7
Resistance welding quality control technique, 176
Resistance Welding Technical Group, 356
Resistance-weld monitoring for production, 172
Rolled steel joints, Fatigue strength of butt welds in, 20

S

SANDT Annual Lecture, 475
Science Museum's aluminium staircase, 266
Sculpture, Welded, 24
Shipbuilding, Work measurement in, 323
Simulated HAZ's in a low-alloy constructional steel, Fracture characteristics of, 250
Spot welds, Properties of splashed resistance, 401
Steel box girders for bridges, 43
Steel Castings Research and Trade Association, 335
Steps in welding innovation and achievement, 443
Stress-corrosion cracking of metallic materials, 253

Structural steel design awards 1973, 464
Structural steel, Weldability of aluminium-sprayed, 50
Structural Steelwork Technical Group, 154, 357
Stud welding—the early days, 9
Submerged Arc-Welding Technical Group, 154, 357
Surfacing Division, 436

T

Tibbenham Prizes 1973, 75
TIG dressing to improve fatigue properties in welded high-strength steels, 134
TIG method, Tube welding by the pulsed, 85
Tube welding by the pulsed TIG method, 85

U

Ultrasonic testing by Japanese fabricator, 376
United Kingdom, Welding in the, 422
USA—A trip to Chicago, 305

V

VAT and professional membership, 77

W

Weldability of aluminium-sprayed structural steel, 50
Weldasearch System 2, 440
Welded aluminium-magnesium alloy, Composition affects tensile strength of, 11
Welding by numbers, 363
Welding cast-iron, 312
Welding injury accidents, 261
Welding innovation and achievement, Steps in, 443
Welding Institute, Report of Research Division 1972, 257
Welding in the service of industry, Cantor Lectures; Dr. R. Weck, 224
Welding a 10-metre centrifuge arm, 186
Weldment inspection personnel, Certification scheme for, 108
Weld-toe overlays on fatigue life, Influence of low-modulus, 330
Wells wide-plate test realistic?, Is the, 102
Wire-feeding systems, Development in, 66
Work measurement in shipbuilding, 323

Z

Zinc-coated steel, Joining techniques for, 60

INDEX TO AUTHORS

A
Allinson, W., 43
Alting, L., 412
Andrews, D. R., 172
B
Bahrani, A. S., 125
Balchin, N. C., 363
Bamber, L., 261
Banks, E. E., 102
Bhattacharya, S., 172
Blake, M. A. W., 67
Boniszewski, T., 219
C
Cassie, B. A., 11
Chadwick, M. D., 285, 330
Christensen, K. T., 412
Coe, F. R., 456, 467
Coleman, D. R., 66
Cookson, C., 148, 370
D
Daines, J. W., 408
Dawes, M. G., 94
Debiez, S., 384
Dick, N. T., 85

Dinsdale, W. D., 401
Duffin, F. D., 125
E
Egan, G. R., 214
Egley, N. S., 412
Ellis, C. R. G., 378, 321
Ellis, D. J., 26
Elson, C. C., 220
Etherington, G. M., 11
Evans, N. H., 254, 285
F
Fleming, D., 226
Foulkes, R. A., 298
G
Gaillard, R., 384
Gerbeaux, H., 458
Gooch, T. G., 140
Granjon, H., 384
Grover, H. K., 250
H
Hannah, M. D., 401
Hannahs, J. R., 321
Herrschaft, D. C., 60
Honeycombe, Mrs. J., 140
Houldcroft, P., 443
Hunt, J. W. A., 205

J
Jenkins, A. R., 425
Jenkins, C. J., 20
Jewell, G., 374
Johnson, K. I., 176, 401
Jolley, G., 250
K
Kerensky, O., 182, 219
Kubani, V., 20
L
Leder, P. L. J., 427
van Lent, Dr. ir P. H., 165
Limbert, W., 323
Lucas, W., 293
M
Martin, H., 9
Millington, D., 134
Moore, D. C., 11, 50
Mortimer, S., 186
Musgrave, M. P., 26, 321
N
Natzler, P. J., 7
Newman, R. P., 104, 467
Nichols, R. W., 90

P
Parsloe, G., 3
R
Ross, D. S., 261
Roswell, S. L., 401
S
Salter, G. R., 66
Saraceno, F. S., 245
Saunders, G. G., 94
Scott, M. H., 422
Sossenheimer, Dr.-Ing. H., 226
Spittle, R., 302
T
Thomsen, T., 336
Thornley, J. C., 220
Toyne, G., 467
Tree, Major A. T., 363
W
Weck, R., 67, 224
Withers, J. E., 50
Wood, A. A., 20

